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Role of Head-Teachers in Sustaining Institutional Change at Elementary Level

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Abstract

The leading purpose of the existing paper was to explore the role of Head-teachers in sustaining institutional change at the elementary level. The study was quantitative and survey method was used to reconnoitre the role of head-teachers in sustaining change at the elementary level. All the elementary head-teacher of division Lahore was constituted the population of the study. Through multistage sampling techniques, 373 head teachers were selected to the sample. The instrument was self-developed (factors were adopted from literature) with the alpha level .95.The results revealed that head-teachers hold a key role in sustaining change at the elementary level. All the four factors significantly correlated. The results exposed that capacity building ($r=.045^{*)}$ and institutionalizing ($r=.117^{*)}$ has positively correlated with gender. Change execution ($r=-.104^{*)}$ has negatively correlated with gender. The total change management by heads ($r=.90^{**)}$ data was significantly correlated with gender. There was statistically significant difference $p<.5$ was calculated in the mean scores ($p=.04$) of gender on sustaining organizational change (Male=Mean123.55, SD=43.31, Female=Mean=186.11, SD=39.26) and managing change by heads.

Keywords: Change management, institutional change, head-teachers, elementary level

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Introduction

There is a proverb that nothing is *permanent* in this world except *change*. Change has turned into a swift and across the board phenomenon. As there increment competition and globalization so do the change(Nahavandi, 2016). Literature allied change confess that "*the adapting procedure of moving from the present state to the coveted state that people, gatherings and associations embrace because of element inner and outer variables*" (Veenswijk, 2005).The term change is very simple but attractive construct for the researchers in all types of organizations. It accrues when somebody replaces old with the new. Change is not a term but is a process. It does not mean moving from known to unknown it is a methodical process. Change is an integral part of life and has a constant position in most organizations (Nickols, 2000).

Change management (CM) can be simplified as a "*structured approach to transitioning organizations, teams and individuals from a current state to an anticipated future state to accomplish or implement a planned strategy and vision*". CM is an organized process aimed at permitting others to embrace and accept change in their existing setting. J.P Kotter (1996) expounds this point by maintaining that organizations adopt change is open-ended and continuous bottom-up rather than top-down process he also argued that change has assisted establishments to adapt, from a management perspective, in micro and macroeconomic forces presently prevailing; to attain a competitive improvement in relation to their contestants; and also providing a scarce organizations with a unchanging positioning for the future(Anderson & Anderson, 2010; Marks & Printy, 2003).

Researchers in the field of CM affirmthat change management has become a ubiquitous theme in the literature of management. As "change" is consider a difficult term to define but the word "*change management*" is an industrious concept.CM is a formal process of changing an organization including a systematic tactic and application of knowledge. As a mean of transmitting people, it enables the people to accept new process & systems(Stewart & Kringas, 2003).CM is acompetitive tactic that involves a vision and continuous process of aligning the organization with its marketplace. Nutshell of this primer is that CM means defining, adopting structured processes, corporate strategies and technologies to agreement with change stemming from internal and external settings (Nickols, 2000) Irrespective the interpretations of structured label, researchers specified that CM has become one of the prodigious themes in the social sciences (Appelbaum, Habashy, Malo, & Shafiq, 2012; Ziegenfuss, 2002).

Literature in regard of CM avow that the term "*managing change*" contains two meanings; the first one is "*the making of changes in a planned and managed or systematic fashion*", the other one is "*the response to changes over which the organization exercises little or no control*". In other sense Authors, like Kotter (1996), Sheil (2001) and Mead (2005) sustain that currently, CM states to the implementation of an idea, system, procedure and behavior that is new to an organization' system(Kin, Abdull Kareem, Nordin, & Wai Bing, 2015).

An emergent approach to change is related to learning forms and is not only a technique for changing management structures and practices. Hence, an organization's capacity to learn and adjust may likewise impact the achievement or disappointment of the change management program. Likewise, in light of the fact that there are no set tenets for driving and overseeing change, a few defenders of the new approach, for instance, Kotter (1996) proposed successions of activities that organizations can receive (D'Ortenzio, 2012).

By reserving critical lens on the history of Change management the following approaches witnessed regarding change management or organizational change(Orlikowski & Hoffman, 1997). The history of CM may pigeonhole under four major areas. As supported by literature the given figure elucidated the historical emergent of change and change management.

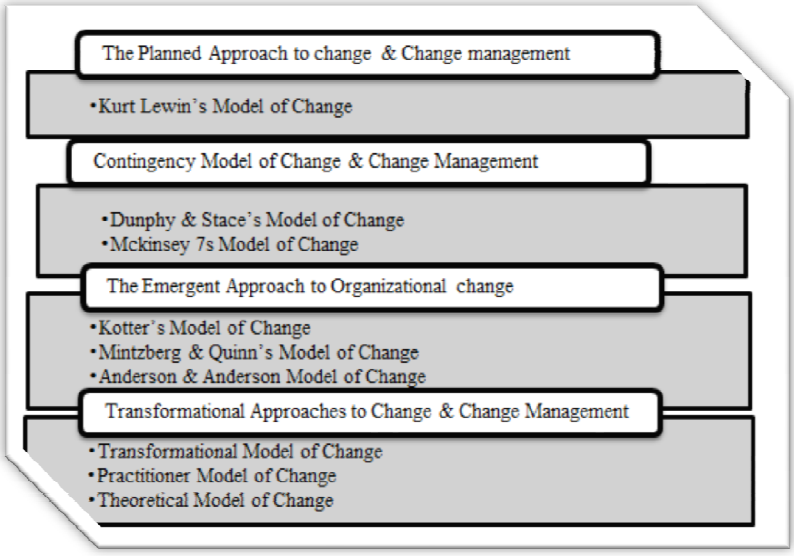


Figure1 Models of Change and Change Management

Types of Change in Organization

Harvard Business Review (2006) elaborated following types of organizational changes (Appelbaum, et al., 2012; D'Ortenzio, 2012; Williamson, 2012).

Organization-wide Versus Subsystem Change-- Organization-wide change may be a noteworthy rebuilding, cooperation or "rightsizing." change in a subsystem may incorporate expansion or evacuation of an item or administration, redesign of a specific division, or execution of another procedure to convey items or administrations(Lewis & Heckman, 2006).

Transformational Versus Incremental-- *"Change may change an association's structure and culture from the customary top-down, various levelled structure to a lot of self-coordinating groups*". Incremental change may join relentless change as a quality organization processor utilization of new PC structure to fabricate efficiencies. Customarily, affiliations experience incremental change and its pioneers don't see the adjustment in that limit(Lewis & Heckman, 2006).

Remedial Versus Developmental Change--can be proposed Change in like manner be developmental – to make a productive condition significantly more successful, for example, broaden the measure of customers served, or duplicate powerful things or organizations (Lewis & Heckman, 2006).

> "*Cure current conditions, for example, to improve the poor execution of a thing or the entire affiliation, decrease burnout in the workplace, help the relationship to twist up discernibly significantly more proactive and less open, or address tremendous spending setbacks*".

Unplanned Versus Planned Change--Unplanned change usually occurs "*due to major, sudden surprise to the institute, which grounds its members to respond in a highly reactive and disorganized fashion*".. Planned change occurs with successful implementation of a Strategic Plan, plan for reorganization, or other implementation of a change of this magnitude (Lewis & Heckman, 2006).

Literature sustenance that greatest resistance to change, is employees several critics have agreed that employees oppose change since they are unnerved to lose to some degree that they esteem and they would prefer not to welcome the change and its suggestions subsequently they don't assume that the change can make nous in the organization or they get it tricky to make do with either the level or routine with regards to change(Appelbaum, et al., 2012; J. Kotter, 2006; J. P. Kotter, 2000). In 2006 by

Harvard Business Review a study support that 66% of change initiatives flop in achieving their wanted business results. *Why is change so difficult*? The five most corporate hindrances to change are depicted in the graph below. Remarkably three circled hindrances are those that you, as a leader, can improve and influence(M. S. Bartlett, 1954).

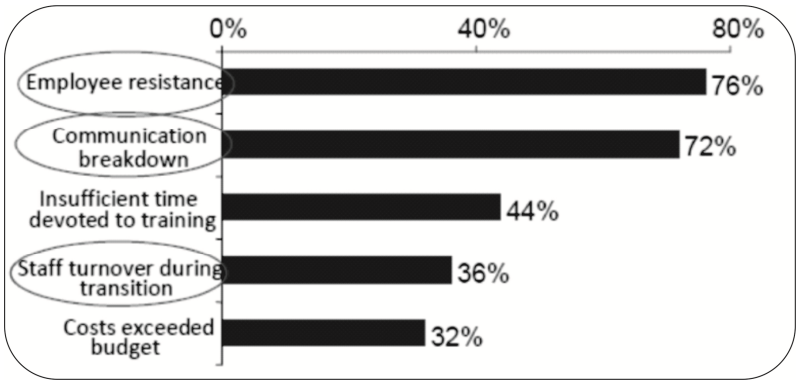


Figure2 Resistance in Managing Organizational Change

It 1s demonstrated that there is a developing deficiency of school leaders and a recommendation, however little proof, of a declining nature of value for school leadership positions. The reason for this need can be assembled under societal, framework and school impacts and join determined change, extending and now and again conflicting cravings, orders and obligation, association, spending cuts, a compliment on association rather than organization, and a "*conspiracy of busyness*", that is the way time, space and correspondence outlines are composed (Mulford, 2003).Literature rejoiced that employees have extreme resistance to sustain change in an organization.

To our best knowledge, there was no study in this regard in which role of leadership was assessed at the elementary level. In literature, there were a number of studies that support the leadership role in sustaining change at various levels, and variance dimensions of schools improvements and so on. The current quantitative paper was designed to explore the role of Head-teachers in sustaining change at the elementary level. Remarkably three circled hindrances are those that you, as a leader, can improve and influence(Ford, Ford, & D'Amelio, 2008; Nickols, 2000).The proposed variable of the study may depicts:

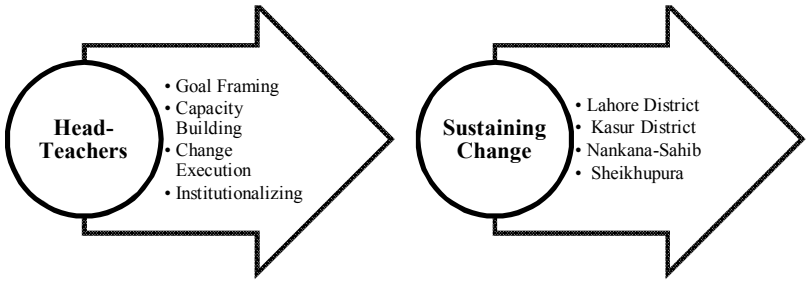


Figure 3 Research Variables

Objectives of the Study

For resolving the above discussion, the objectives of the study were to:

1. Explore the role of elementary school's Head-Teachers in managing change.
2. Identify the areas of leadership for institutionalizing change at elementary schools in Lahore division.
3. Differentiate the role of elementary Head-Teachers in supporting a change in schools of Lahore Division.
4. Inspect the validity of an instrument already used at a particular level at the elementary level.

Research Question

By reserving the lens following research question were made to the relation of research objectives.

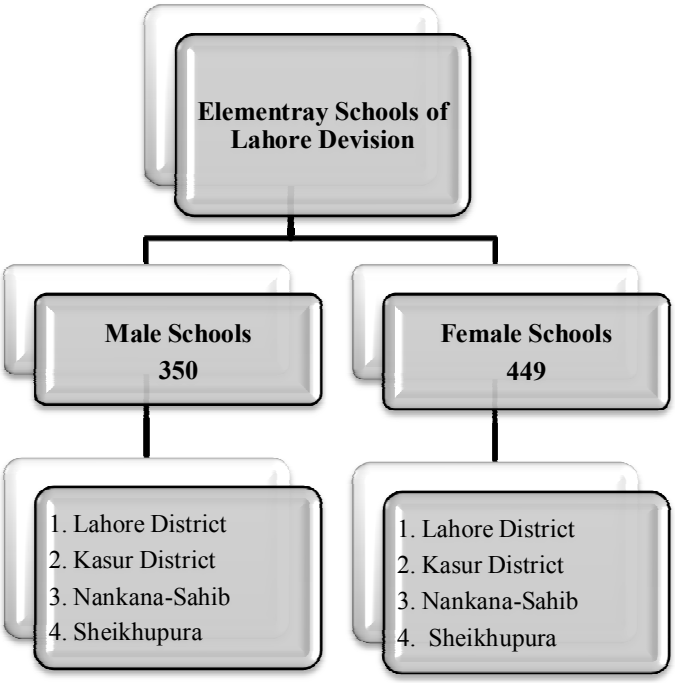
1. What was the role of elementary head-teacher in managing change in their schools?
2. What is the difference between male and female elementary head-teachers in managing change at their schools?
3. What is item wise values of change management questionnaire developed in accordance with the four-factor(*Goal Framing, Capacity Building, Change Execution& Institutionalize*) tested and validated by (Kin, et al., 2015; Kin, Kareem, Nordin, & Bing, 2014).

Methodology

The nature of the study was descriptive research paradigm was quantitative and survey design with *Non-Contrived* settings and the *Cross-Sectional* time frame was used to collect data. The survey is a slope of questions aimed at collecting data from a particular group on some current phenomena(LR Gay & Airasian, 2000; L Gay, Mills, & Airasian, 2012; L. R. Gay, Mills, & Airasian, 2011).

Population

The data retrieved from (Punjab Development Statistics 2015) showed that there were four districts contained by Lahore division. The official web of schools education department's (Punjab Schools) facts and figures indicated that 350 male and 449 female elementary schools were positioned in Lahore division. District wise data of schools were clarified in given figure and table.



Sources: Punjab Schools Web[†]

The present quantitative evidence was anempirical support to moulds regarding the role of headteacher's role in sustaining change at theelementary level. Given table deliberately displayed the accessible population of the current paper.

[†]http://schoolportal.punjab.gov.pk/census/schoolInfoNew.asp?distId=352--Lahore

Table 1
Elementary Schools of Division Lahore (Population)

#	Districts of Lahore Division	Male	Female	Total
1.	Lahore District	93	140	233
2.	Nankana-Sahib District	61	80	141
3.	Kasur District	112	144	256
4.	Sheikhupura District	84	135	219
5.	Total	350	499	849

Sources: Punjab Development Statistics 2015[‡]

Sample and Sampling Technique

Multistage sampling technique was best used by theresearchers to draw the sample for study(Fraenkel & Wallen, 2003). From total 849 Male Head-Teacher (359) and Female Elementary level Head-Teacher (499) the samples of 373 Head-Teachers were drowned by using simple random sampling calculator.

Table 2
Gender Wise calculated sample (Sampling)

Sampling Calculation	
Confidence Level	95%
Calculated Sample size	373
Male	184
Female	189
Total	373

Sources: Online simple random sampling calculator[§]

Research Instrument

A self-developed questionnaire consisted of 54 items and four-factor was used to collect data from selected head-teachers of elementary level. The questionnaire was validated and tested by Khan, A.M (2016). The four factors (used to develop questionnaire) were also tested and validated by (Kin, et al., 2015; Kin, et al., 2014). The four-factor questionnaire, containing 54 items used to assemble data from heads of elementary level.

[‡]http://www.bos.gop.pk/system/files/Dev-2015.pdf
Punjab Development Statistics 2015, Bureau of Statistics Government of Punjab
[§] http://www.raosoft.com/samplesize.html

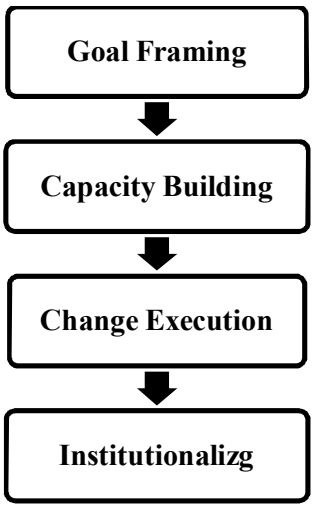


Figure 4 Key Factors of the Study

Factors were adopted from literature (Kin, et al., 2015; Kin, et al., 2014) for the development of the questionnaire. A major purpose of the paper was also testing these four factors in the Pakistanicontext, especially at elementary level head's perspective.

Data Analysis and Interpretations

Descriptive and inferential techniques were used to analyse the data. Inferential Statistics and Factor Analysis was also applied in order to interpret the data regarding second & third objective.

Data Cleaning and Screening

Table 3
Normality of Data

Variable	*Kolmogorov-Smirnov*[a]			*Shapiro-Wilk*		
	Statistic	*Df*	Sig.	Statistic	*Df*	Sig.
CM	.088	31	.200*	.982	31	.855

Table designates Data Cleaning and Screening process at first the normality of data. The Kolmogorov-Smirnov[a] and Shapiro-Wilk were used to evaluate the normality of data. The data normality tests Kolmogorov-Smirnov[a] *(.20*) and Shapiro-Wilk *(.98*) were insignificant values which signpost normality of data. Insignificant values of Kolmogorov-Smirnov[a] *(.20*) and Shapiro-Wilk (.98) test (Pallant, 2005) were an indication of the normality of data. It was also clear that the data was free from outliers.

Descriptive Statistics

The descriptive analysis offers significance meaning to the useless data, accordingly "*breathing life into a lifeless data*"(Keith, 2014). The conclusions and inferences are precise just if appropriate statistical tests are exploited(Ali & Bhaskar, 2016).

Table 4

Descriptive Statistics Based on Gender (373)

Var.	Descriptive			Gender		
	Frequency	*Mean*	*SD*	*Percent*	*Valid Percent*	*Cumulative Percent*
Male	184	193.55	43.31	49.3	49.3	49.3
Female	189	186.11	39.26	50.7	50.7	100.0
Total	373	1.51	.501	100.0	100.0	

The table exhibits descriptive results on the basis of gender. Overall 373 respondents were subjected to include in the data from which Male 184 (*M=193.55, SD=49.3*) and 189 female (*M=186.11, SD=39.26*). In the whole respondents, 49.3% male and 50.7% respondent were females. Valid Percent and Cumulative Percent were also shown in the table.

Table 5

Frequency Distribution Gender by age (N=373)

Variable	Category	Gender				Total	
		Female		Male			
		Freq.	*Percentage*	*Freq.*	*Percentage*	*Freq.*	*Percentage*
Age	>30 Years	19	10.1%	12	6.5%	31	8.3%
	30-40Years	85	45.0%	116	63.3%	201	53.9%
	41-50Years	65	34.4%	51	27.5%	116	31.1%
	51-60Years	20	10.6%	05	2.7%	25	6.7%
	Total	189	100%	184	100%	373	100%

Frequencies of gender by age of respondents were displayed in the table no. 6. The data shown in the frequency table revealed that age group 30-40 years contains the highest frequency in the case of females and same results were observed in the case of male head-teachers in sustain change at elementary schools. Least age group was > 30 years in female head-teachers and age group 50-60 years has least frequencies in the case of male head-teachers.

Table 6

Factor Wise Mean Score (N=373)

#	Key Factors	Mini	Maxi	Mean	SD
1	Goal Framing	11.00	55.00	38.60	8.96
2	Capacity Building	15.00	75.00	52.70	13.54
3	Change Execution	17.00	85.00	61.50	14.39
4	Institutionalizing	10.00	50.00	36.98	8.40
5	Total	53.00	265.00	189.78	41.42

Table 6 disclosed factor wise mean score of the data. Results indicated in the table illustrated that Change Execution (*M=, 61.5 SD=14.39*) Goal Framing (*M=38.60, SD=8.9*) Capacity Building (*M=52.70, SD=13.54*) and Institutionalizing (*M=36.98, SD=8.40*). Overall mean score (*M=189.78, SD=41.42*) of data regarding change by heads at the elementary level

Table 7

Correlation among Gender and Key Factors (N=373)

S #	Key Variables	1	2	3	4	5	6
1	Goal Framing		1	.811**	.739**	.657**	.872**
2	Capacity Building			1	.839**	.684**	.933**
3	Change Execution				1	.847**	.953**
4	Institutionalizing					1	.863**
5	Total						1

**sig. at 0.05*

*** sig. at 0.01*

Primarily, Bi-variate correlation (Pearson) analysis was conducted on the gender and all four factors to see the assumed relationship among all variables of the study. The results exposed that capacity building (r =.045*) and institutionalizing (r =.117*) has positively correlated with gender. Change execution (r = -.104*) has negatively correlated with gender. The total change management by heads (r =.90**) data were significantly correlated with gender (Khan & Adil, 2013).

Table 8

Change by Head-Teacher within Gender N= 373 (Male=184, Female= 189)

S #	Managing Change	Gender	Mean	S.D	*t*-values	*df*	Sig
1	Goal Framing	Male	39.23	9.28	1.3	371	.004
		Female	37.07	8.61			
2	Capacity Building	Male	53.32	14.37	.78	371	.03
		Female	52.10	12.68			
3	Change Execution	Male	63.01	15.13	2.0	371	.04
		Female	60.02	13.51			
4	Institutionalizing	Male	37.97	8.80	2.2	371	.02
		Female	36.01	7.90			
5	Total	Male	123.55	43.31	.10	371	.04
		Female	186.11	39.26			

**p<.05; **p< .001*

To evaluate the statistically significant difference between gender and change management by heads at the elementary level an independent sample t-test was accompanied. Table 8 rejoiced the statistically significant difference in gender and four key factors of the study. There was statistically significant difference p>.5 was calculated in the mean scores of gender (*Male=Mean 123.55, SD=43.31, Female=Mean=186.11, SD=39.26*) and managing change by heads. The eta squared (.04) values indicate the magnitude was medium.

Table 9

Internal consistency of Scale (N=100)

#	Items of Questionnaire	Items	Cronbach's Alpha
1.	Goal Framing	11	.924
2.	Capacity Building	15	.960
3.	Change Execution	16	.955
4.	Institutionalizing	10	.936
5.	Total	54	.982

Table 9 exhibited the evidence related to the internal consistency of the scale. All the four factors have good values of Cronbach's Alpha (*Goal Framing Capacity Building .96, Change Execution=.95 Institutionalizing=.93*). Total 54 items were also subjected to test theirliability of the scale, the calculated value was .982. A scale having Cronbachalpha coefficient value greater than .8 has good internal consistency(Pavot, Diener, Colvin, & Sandvik, 1991).

Factor Analysis

EFA extricates imperceptibly factors from data without indicating the number of factors or without deciding how the estimation items or the perceived variables are loaded onto which particular factor, rather, factors are characterized after they are extracted (Khan & Adil, 2013). As such, EFA is connected in circumstances where the factorial structure or the dimensionality of an instrument for a given populace is obscure, more often than not in the circumstance of developing new instruments (Field, 2005).

Interestingly, Confirmatory Factor Analysis (CFA) (Bollen, 1984; R. Brown, Condor, Mathews, Wade, & Williams, 1986; T. A. Brown, 2003) is utilized in a situation where one has some knowledge of the dimensionality of the factors under investigation either in view of a hypothesis or observational discoveries (Wang & Wang, 2012).

In the discipline of social science, the researcher attempts to amount variables that cannot directly be quantified. The issue into the picture with EFA is a technique for determining a cluster of variables. Factor analysis discusses a set of method needed for summarization and dimension reduction of items. Expert (Khan & Adil, 2013) characterize factor analysis as a reliance procedure whose essential reason for existing is to characterize the basic structure among the factors in the examination. Factor Analysis (Field, 2005; Malhotra, Birks, Palmer, & Koenig-Lewis, 2003) a method might be utilized for (a) understanding the structure of an arrangement of factors, (b) build a poll to measure a fundamental variable, (c) diminish informational collection to a more reasonable size while holding as a great part of the first data as could be allowed, and (d) distinguish another, little set of uncorrelated factors to supplant the unique arrangement of connected factors in resulting multivariate exploration.

Exploratory Factor Analysis

The 54 items of the change Institutionalizing scale (CMI) were endangered to (PCA) Principle Component analysis utilizing SPSS Version 19. Preceding performing PCA, the reasonableness of information for factor investigation was evaluated. Examination of the correlation Matrix uncovered the nearness of numerous coefficients of .32 or more. The Kaiser-Meyer-Oklin score was .955, surpassing the prescribed esteem of.6 (Kaiser, 1970, 1974) and Bartlett's Test of Sphericity (J. Bartlett, 2014; M. S. Bartlett, 1954) achieved statistically significant, supporting the factorability of the relationship. Foremost parts investigation uncovered the presence of six components with eigenvalues exceeding 1, expounding 27.72%, 6.36%, 5.51%, 4.08%, 2.69% and 2.11 % of the variance respectively. An investigation of the scree plot uncovered an unmistakable break after the second component. Utilizing Cateli's (1966) scree test, it was chosen to hold two segments for assist examination wan (Wang & Wang, 2012).

Confirmatory Factor Analysis

Evidence related to the validity and reliability of used research instrument discussed in existing section. Among the 54 items majority of Factor loading values were greater than .08. As indicated by (Keith, 2014; Wang & Wang, 2012)an item in Confirmatory factor analysis exceeding the factor loading value greater than .08 contains good validity. All the Composite reliability (CR) values were also in a range that can be depicted as sufficient for discriminant validity.

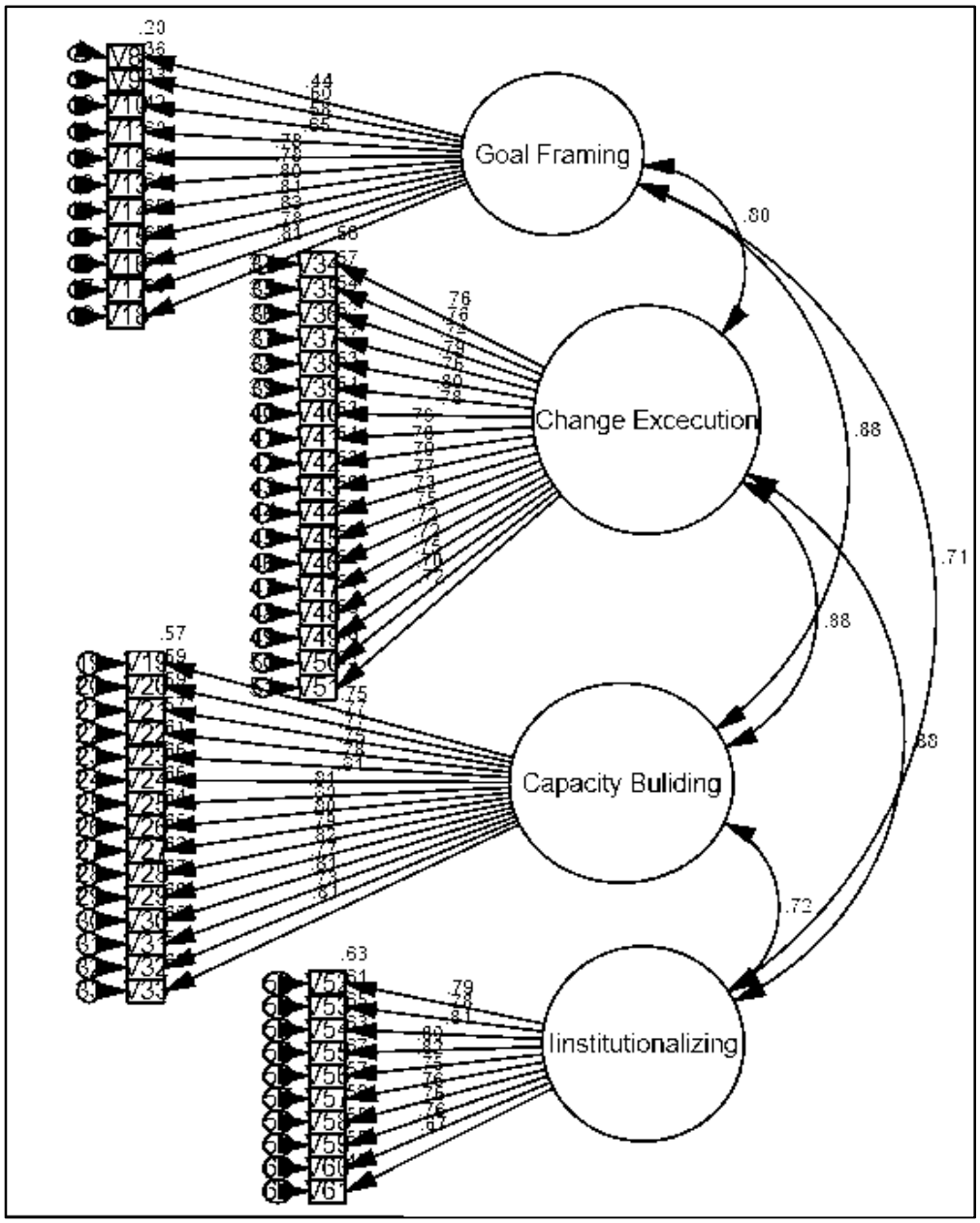
Table10

Baseline Comparisons (Variables)

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.926	.610	1.000	.823	.911
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Number of distinct sample movement: 1539
Number of distinct parameters to be estimated: 168
Minimum was achieved: Chi-Squire=8357.274
Degree of freedom (1539-168):1371

The items wise loading can be observed in the path diagram of Factor model:



Results and Discussion

The present paper was an empirical support to pursue the role of elementary head-teachers in sustaining change at their schools. The current section of the paper was to conclude the results of data interpretation.

The data normality was tested Kolmogorov-Smirnov[a] *(.20*) and Shapiro-Wilk *(.98*) were insignificant values which signpost normality of data. Insignificant values of Kolmogorov-Smirnov[a] *(.20*) and Shapiro-Wilk (.98) test (Pallant, 2005) were an indication of the normality of data. The frequencies were also revealed that age group 30-40 years contains the highest frequency in the case of females and same results were observed in the case of male head-teachers in sustain change at elementary schools. Least age group was > 30 years in female head-teachers and age group 50-60 years has least frequencies in the case of male head-teachers.

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The results exposed that capacity building (r=.045$^{*)}$ and institutionalizing (r=.117$^{*)}$ has positively correlated with gender. Change execution (r = -.104$^{*)}$ has negatively correlated with gender. The total change management by heads (r =.90$^{**)}$ data was significantly correlated with gender. There was statistically significant difference p>.5 was calculated in the mean scores of gender (*Male=Mean123.55, SD=43.31, Female=Mean=186.11, SD=39.26*) and managing change by heads. The eta squared (.04) values indicate the magnitude was medium. Total 54 items were also subjected to test the reliability of the scale, the calculated value was .982.

Foremost parts investigation uncovered the presence of six components with eigenvalues exceeding 1, expounding 27.72%, 6.36%, 5.51%, 4.08%, 2.69% and 2.11 % of the variance respectively.

Direction for Future Research

The current study evaluates that the heads at school level hold a key position in sustaining organizational change. Change sustained by head-teachers was explored in this paper. Results support that the head-teacher holds a key role in sustaining change at elementary schools. This study was conducted at the elementary level in future it may be at another dimension of educational level. In the currentpaper, there was only head-teachers role was explored but literature supported that employees have the greatest role in resisting organizational change so the teachers would also be subjected to explore their role in sustaining and assistance in managing change by their heads. More specifically, this paper was an quantitative support to the literature it may be qualitative type study to presents more and in-depth facts and figures regarding the role of leadership in change execution at the elementary level.

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